

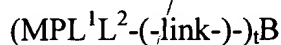
IN THE CLAIMS:

Please amend claims 21-23, pursuant to 37 C.F.R. § 1.121, as follows:

21. (Amended) An assay reagent composition comprising:

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(a) an agent which forms a reductant upon exposure of the assay reagent composition to an electrochemical potential sufficient to oxidize said agent; and

(b) a chemical moiety which is (i) not oxidized to a higher oxidation state at said electrochemical potential; and (ii) capable of emitting electrochemiluminescence, wherein said chemical moiety has the formula



wherein M is a lanthanide;

P is a polydentate ligand of M;

L¹ and L² are ligands of M, each of which may be a substance covalently bound to one or more of P, L¹, or L² through one or more covalent bond linkages, said linkages designated as (-link-) and being covalent bonds linking B with at least one of P, L¹, or L²;

t is an integer equal to or greater than 1;

B is a biological substance or a synthetic substance which is capable of binding to a complementary material;

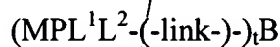
P, L¹, L², and B are of such number that the total number of bonds to M provided by the ligands of M equals the coordination number of M; and

P, L¹, L², and B are of such composition that the chemical moiety can be induced to repeatedly emit electrochemiluminescence.

22. (Amended) An assay reagent composition comprising:

(a) an agent which forms an oxidant upon exposure of the reagent mixture to an electrochemical potential sufficient to reduce said agent; and

(b) a chemical moiety which is (i) not reduced to a lower oxidation state at said electrochemical potential; and (ii) capable of emitting electrochemiluminescence, wherein said chemical moiety has the formula



wherein M is a lanthanide;

P is a polydentate ligand of M;

L¹ and L² are ligands of M, each of which may be a substance covalently bound to one or more of P, L¹, or L² through one or more covalent bond linkages, said linkages designated as (-link-) and being covalent bonds linking B with at least one of P, L¹, or L²;

t is an integer equal to or greater than 1;

B is a biological substance or a synthetic substance which is capable of binding to a complementary material;

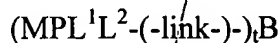
P, L¹, L², and B are of such number that the total number of bonds to M provided by the ligands of M equals the coordination number of M; and

P, L¹, L², and B are of such composition that the chemical moiety can be induced to repeatedly emit electrochemiluminescence.

23. (Amended) A system for determining the presence of a chemical moiety, which system comprises:

(a) a reagent mixture comprising an agent which forms either a reductant or an oxidant upon exposure of the reagent mixture to a level of electrochemical energy sufficient to oxidize or

reduce said agent; and a chemical moiety which is (i) not oxidized or reduced at said level of electrochemical energy; and (ii) capable of emitting electrochemiluminescence, wherein said chemical moiety has the formula



wherein M is a lanthanide;

P is a polydentate ligand of M;

L¹ and L² are ligands of M, each of which may be a substance covalently bound to one or more of P, L¹, or L² through one or more covalent bond linkages, said linkages designated as (-link-) and being covalent bonds linking B with at least one of P, L¹, or L²;

t is an integer equal to or greater than 1;

B is a biological substance or a synthetic substance which is capable of binding to a complementary material;

P, L¹, L², and B are of such number that the total number of bonds to M provided by the ligands of M equals the coordination number of M; and

P, L¹, L², and B are of such composition that the chemical moiety can be induced to repeatedly emit electrochemiluminescence;

(b) means for exposing the reagent mixture to

(i) electrochemical energy of a potential which oscillates between a potential sufficiently positive to oxidize the chemical moiety and a potential sufficiently negative to reduce the chemical moiety, thereby inducing the chemical moiety to repeatedly electrochemiluminesce; or to

(ii) electrochemical energy such that said chemical moiety is oxidized and the agent forms a reductant, thereby inducing the chemical moiety to repeatedly electrochemiluminescence; or to

(iii) electrochemical energy such that said chemical moiety is reduced and the agent forms an oxidant, thereby inducing the chemical moiety to repeatedly electrochemiluminescence; or to

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und
(iv) electrochemical energy such that said agent is reduced to form an oxidant and said chemical moiety is not reduced by said electrochemical energy, thereby inducing said chemical moiety to electrochemiluminescence or to electrochemical energy such that said agent is oxidized to form a reductant and said moiety is not oxidized by said electrochemical energy, thereby inducing said chemical moiety to electrochemiluminescence; and

(c) means for detecting emitted luminescence to determine the presence of the chemical moiety.

REMARKS

Favorable reconsideration and allowance are respectfully requested. Claims 21-23 are pending and at issue.

Rejections Under 35 U.S.C. § 112, First & Second Paragraphs

Claims 21-23 were rejected under 35 U.S.C. § 112, first paragraph, for (1) allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventors had possession of the claimed